

1 CLAIMS

2 What is claimed is:

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4 Claim 1. An intra-operative method for essentially  
5 eliminating post-operative pain associated with a surgical  
6 procedure comprising the steps of;

7 a) providing a medicated solution formulated for intra-  
8 operative use which is a mixture of an injectable anesthetic,  
9 epinephrine, sodium chloride and an injectable anti-  
10 inflammatory agent; and

11 b) administering predetermined amounts of said medicated  
12 solution intra-operatively to selected sites within the  
13 boundaries of a surgical field;

14 whereby post-operative pain associated with said  
15 surgical procedure is essentially eliminated.

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17 Claim 2. The intra-operative method in accordance with  
18 claim 1 wherein said injectable anesthetic is selected from  
19 the group consisting of bupivacaine, levobupivacaine,  
20 ropivacaine, dibucaine, procaine, chloropropane, prilocaine,  
21 mepivacaine, etidocaine, tetracaine, lidocaine, xylocaine or  
22 mixtures thereof and said injectable anti-inflammatory agent  
23 is selected from the group consisting of ketorolac  
24 tromethamine, propecatomol or mixtures thereof.

1           Claim 3. The intra-operative method in accordance with  
2   claim 1 wherein said injectable anesthetic is levobupivacaine  
3   and said injectable anti-inflammatory agent is ketorolac  
4   tromethamine.

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6           Claim 4. The intra-operative method in accordance with  
7   claim 1 wherein said predetermined amount comprises  
8   approximately 5cc of said medicated solution.

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10          Claim 5. The intra-operative method in accordance with  
11   claim 1 wherein said administering of said medicated solution  
12   utilizes a hollow shaft having a proximal end and a distal  
13   end, wherein said medical solution flows within said shaft  
14   from said proximal end toward said distal end, which distal  
15   end is defined by a solid end having a plurality of  
16   circumferentially positioned apertures in said shaft for  
17   providing radially directed flow of the medicated solution  
18   circumferentially about said shaft.

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20          Claim 6. The intra-operative method in accordance with  
21   claim 5 wherein said hollow shaft is an 18 gauge spinal  
22   needle.

1           Claim 7. The intra-operative method in accordance with  
2   claim 1 wherein said surgical procedure is selected from the  
3   group consisting of a total hip replacement (THR), a total  
4   knee replacement (TKR) and a UNI knee replacement.

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6           Claim 8. A kit for carrying out an intra-operative  
7   method for essentially eliminating pain associated with a  
8   surgical procedure comprising;

9           a combination of ingredients including an injectable  
10   anesthetic, epinephrine, sodium chloride and an injectable  
11   anti-inflammatory agent calculated for specific patient  
12   weights; and

13          a means for administering said medicated solution to a  
14   surgical field, said means comprising a hollow shaft spinal  
15   needle.

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17   having a proximal end and a distal end, wherein upon  
18   administration, said medical solution flows within said shaft  
19   from said proximal end toward said distal end, which distal  
20   end is defined by a solid end having a plurality of  
21   circumferentially positioned apertures in said shaft for  
22   providing radially directed flow of the medicated solution  
23   circumferentially about said shaft.

1           Claim 9. The kit in accordance with claim 8 wherein said  
2   injectable anesthetic is selected from the group consisting  
3   of bupivacaine, levobupivacaine, ropivacaine, dibucaine,  
4   procaine, chloropropane, prilocaine, mepivacaine, etidocaine,  
5   tetracaine, lidocaine, xylocaine or mixtures thereof and said  
6   injectable anti-inflammatory agent is selected from the group  
7   consisting of ketorolac tromethamine, propecatomol or  
8   mixtures thereof.

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10           Claim 10. The kit in accordance with claim 8 wherein  
11   said injectable anesthetic is levobupivacaine and said  
12   injectable anti-inflammatory agent is ketorolac tromethamine.

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14           Claim 11. The kit in accordance with claim 8 wherein  
15   said hollow shaft is an 18 gauge spinal needle.

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17           Claim 12. The kit in accordance with claim 8 wherein  
18   said hollow shaft has a proximal end and a distal end,  
19   wherein upon administration, said medical solution flows  
20   within said shaft from said proximal end toward said distal  
21   end, which distal end is defined by a solid end having a  
22   plurality of circumferentially positioned apertures in said  
23   shaft for providing radially directed flow of the medicated  
24   solution circumferentially about said shaft.

1           Claim 13. An intra-operative method for essentially  
2 eliminating pain associated with a surgical procedure  
3 performed in a patient weighing less than 160 pounds  
4 comprising the steps of;

5           a) mixing 50 ml of 0.5% levobupivacaine with 0.5 ml  
6 epinephrine diluted 1:1000;

7           b) diluting the solution obtained in step a to 100 ml  
8 wherein the concentration of levobupivacaine is 0.25%;

9           c) removing 40 ml of the solution obtained in step b;

10          d) discarding 20 ml of the solution removed in step c  
11 and setting aside 20 ml of the solution removed in step c;

12          e) adding 60 mg of ketorolac tromethamine to the  
13 remaining 60 ml of solution of step c;

14          f) injecting into a subcutaneous layer around a surgical  
15 incision the 20 ml of solution set aside in step d via a  
16 needle using about 4 single injections of approximately 5cc  
17 each; and

18          g) injecting into multiple areas within said surgical  
19 incision the solution of step e via a needle using about 12  
20 single injections of approximately 5cc each;

21          whereby pain associated with said surgical procedure is  
22 essentially eliminated.

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1           Claim 13. The intra-operative method in accordance with  
2   claim 12 wherein injection is through a hollow shaft having a  
3   proximal end and a distal end, wherein upon administration,  
4   said medical solution flows within said shaft from said  
5   proximal end toward said distal end, which distal end is  
6   defined by a solid end having a plurality of  
7   circumferentially positioned apertures in said shaft for  
8   providing radially directed flow of the medicated solution  
9   circumferentially about said shaft.

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11           Claim 14. The intra-operative method in accordance with  
12   claim 12 wherein injection is through a hollow shaft which is  
13   an 18 gauge spinal needle.

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15           Claim 15. The intra-operative method in accordance with  
16   claim 12 wherein said surgical procedure is selected from the  
17   group consisting of a total hip replacement (THR), a total  
18   knee replacement (TKR) and a UNI knee replacement.

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20           Claim 16. An intra-operative method for essentially  
21   eliminating pain associated with a surgical procedure  
22   performed in a patient weighing 160 pounds or more comprising  
23   the steps of;

24           a) mixing 50 ml of 0.5% levobupivacaine with 0.5 ml

1 epinephrine diluted 1:1000;  
2 b) diluting the solution obtained in step a to 100 ml  
3 wherein the concentration of levobupivacaine is 0.25%;  
4 c) removing and setting aside 20 ml of the solution  
5 obtained in step b;  
6 d) adding 60 mg of ketorolac tromethamine to the  
7 remaining 80 ml of solution of step c;  
8 e) injecting into a subcutaneous layer around a surgical  
9 incision the 20 ml of solution set aside in step c via a  
10 needle using about 4 single injections of approximately 5cc  
11 each; and  
12 f) injecting into multiple areas within said surgical  
13 incision the solution of step d via a needle using about 16  
14 single injections of approximately 5cc each;  
15 whereby pain associated with said surgical procedure is  
16 essentially eliminated.

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18 Claim 17. The intra-operative method in accordance with  
19 claim 16 wherein injection is through a hollow shaft having a  
20 proximal end and a distal end, wherein upon administration,  
21 said medical solution flows within said shaft from said  
22 proximal end toward said distal end, which distal end is  
23 defined by a solid end having a plurality of  
24 circumferentially positioned apertures in said shaft for  
25 providing radially directed flow of the medicated solution

1 circumferentially about said shaft.

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3 Claim 18. The intra-operative method in accordance with  
4 claim 16 wherein injection is through an 18 gauge spinal  
5 needle.

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7 Claim 19. The intra-operative method in accordance with  
8 claim 16 wherein said surgical procedure is selected from the  
9 group consisting of a total hip replacement (THR), a total  
10 knee replacement (TKR) and a UNI knee replacement.

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